



## Climate change and desertification vulnerability in Southern Italy

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**Year:** 2007  
**Journal:** Phytocoenologia. 37 (4-Mar): 495-521

### Abstract:

The Rio de Janeiro Conference (1992) brought the state of health of the environment and global warming to the focus of attention. As a contribution to ongoing studies in this regard, this paper investigates whether, over protracted periods during the 20(th) century, climate change occurred in two regions of southern Italy - Puglia and Sicilia. A twofold approach was adopted: firstly, climate long time series describing the thermo-pluviometric regimes of the two regions were examined for trends, using as a basis data on monthly rainfall (mm) and minimum/maximum temperature (degrees C). For Puglia, both the rainfall and temperature data used were those recorded at 21 stations during the period 1921-2001, whereas for Sicilia data recorded at 18 stations was used, however the rainfall data was for the period 1956-2000, while temperature data was for the period 1924-2003. Secondly, a comparison was made between the RIVAS-MARTINEZ ombrothermic indices for the two periods 1955-1985 and 1986-2000. Both regression-analysis results and RIVAS-MARTINEZ indices indicate an increase in aridity and thus a growing vulnerability to desertification. However, any climate change under way can be greatly influenced by local orographic systems, meaning that different trends may be found even at stations located relatively close to each other. There is no uniform pattern to the trends in climate change emerging from the statistical analyses undertaken here. Therefore local government planning needs to take account of factors at a global scale (at the level of the Mediterranean basin as a whole), as well as factors at a regional and local scale, which are more closely linked to specific geomorphological characteristics.

**Source:** <http://dx.doi.org/10.1127/0340-269x/2007/0037-0495>

### Resource Description

#### Exposure :

weather or climate related pathway by which climate change affects health

Precipitation, Temperature

**Temperature:** Fluctuations

#### Geographic Feature:

resource focuses on specific type of geography

None or Unspecified, Ocean/Coastal

#### Geographic Location:

# Climate Change and Human Health Literature Portal

resource focuses on specific location

Non-United States

**Non-United States:** Europe

**European Region/Country:** European Country

**Other European Country :** Italy

**Health Impact:** ☒

specification of health effect or disease related to climate change exposure

Health Outcome Unspecified

**Resource Type:** ☒

format or standard characteristic of resource

Research Article

**Timescale:** ☒

time period studied

Time Scale Unspecified